

WHAT IS CLAIMED IS:

1
2 1. An isolated nucleic acid molecule comprising a polynucleotide sequence
3 having a subsequence which specifically hybridizes under stringent conditions to
4 a sequence selected from the group consisting of SEQ. ID. No. 2, SEQ. ID. No.
5 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID. No. 6, SEQ. ID. No. 7, SEQ.
6 ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No. 10, SEQ. ID. No. 12, AND SEQ.
7 ID. No. 13.

1 2 (2). The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.

2 3 2.

1 3 (3). The isolated nucleic acid of claim 2, wherein the
2 subsequence is SEQ. ID. No. 2.

1 4 (4). The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes to SEQ. ID. No. 3.

1 5 (5). The isolated nucleic acid of claim 4, wherein the
2 polynucleotide is SEQ. ID. No. 3.

1 6 (6). The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.
3 4.

1 7 (7). The isolated nucleic acid of claim 6, wherein the
2 subsequence is SEQ. ID. No. 4.

1 8 (8). The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.
3 5.

Claims numbered under Rule 126
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1 9 8. The isolated nucleic acid of claim 8, wherein the
2 subsequence is SEQ. ID. No. 5.

1 10 9. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.
3 6.

1 11 10. The isolated nucleic acid of claim 10, wherein the
2 subsequence is SEQ. ID. No. 6.

1 12 11. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.
3 7.

1 13 12. The isolated nucleic acid of claim 12, wherein the
2 subsequence is SEQ. ID. No. 7.

1 14 13. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.
3 8.

1 15 14. The isolated nucleic acid of claim 14, 16, 18, 20, wherein
2 the subsequence is SEQ. ID. No. 8.

1 16 15. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.
3 9.

1 17 16. The isolated nucleic acid of claim 16, wherein the
2 subsequence is SEQ. ID. No. 9.

1 18 18 17. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.
3 10.

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1 19 18. The isolated nucleic acid of claim 18, wherein the
2 subsequence is SEQ. ID. No. 10.

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1 20 19. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.
3 12.

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1 21 20. The isolated nucleic acid of claim 20, wherein the
2 subsequence is SEQ. ID. No. 12.

around under
1 22 21. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.
3 13.

Claims
1 23 22. The isolated nucleic acid of claim 22, wherein the
2 subsequence is SEQ. ID. No. 12.

1 24 23. The isolated nucleic acid of claim 1, further comprising a
2 promoter sequence operably linked to the polynucleotide sequence.

1 25 24. The isolated nucleic acid of claim 1, which nucleic acid is a
2 cDNA molecule.

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28. A method of screening for neoplastic cells in a sample, the
method comprising:

26. The method of claim 26, wherein the nucleic acid sample is
from a patient with breast cancer.

1 (Original) 27. The method of claim 26, wherein the nucleic acid sample is
2 a metaphase spread or a interphase nucleus.

28. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEO, ID. No. 1.

30 29. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID No. 2

31 30. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 3.

~~32~~ ~~31~~. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID No. 4.

33 *32*. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ. ID. No. 5.

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1 34. ~~37.~~ The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 6.

1 35. ~~37.~~ The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 7.

1 36. ~~38.~~ The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 8.

1 37. ~~39.~~ The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 9.

1 38. ~~39.~~ The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 10.

1 39. ~~40.~~ The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 12.

1 40. ~~41.~~ The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 13.

1 41. ~~42.~~ The method of claim 26, wherein the probe is used to
2 identify the presence of a mutation in the target polynucleotide sequence.

Claims numbered

1 41. A method for detecting a neoplastic cell in a biological
2 sample, the method comprising:

3 contacting the sample with an antibody that specifically binds a
4 polypeptide antigen encoded by a polynucleotide sequence comprising a sequence
5 selected from the group consisting of SEQ. ID. No. 1, SEQ. ID. No. 2, SEQ.
6 ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID. No. 6, SEQ. ID. No. 7,
7 SEQ. ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No. 10, SEQ. ID. No. 12, and
8 SEQ. ID. No. 13; and

9 detecting the formation of an antigen-antibody complex.

1 43. 42. The method of claim 42, wherein the sample is from breast
2 tissue.

1 44. 43. A method of inhibiting the pathological proliferation of
2 cancer cells, the method comprising inhibiting the activity of a gene product of
3 an endogenous gene having a subsequence which hybridizes under stringent
4 conditions to a sequence selected from the group consisting of SEQ. ID. 1, SEQ.
5 ID. No. 2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID. No. 6,
6 SEQ. ID. No. 7, SEQ. ID. No. 8, SEQ. ID. NO. 9, SEQ. ID. NO. 10, SEQ.
7 ID. No. 12, and SEQ. ID. No. 13.

1 45. 44. A method of detecting a cancer, said method comprising
2 detecting the overexpression of a protein encoded in a 20q13 amplicon.

1 46. 45. The method of claim 45, wherein said protein encoded in a
2 20q13 amplicon is ZABC1.

1 47. 46. The method of claim 45, wherein said protein encoded in a
2 20q13 amplicon is 1b1.